Curriculum Handbook *for* **Parents**

2000–2001

SENIOR HIGH SCHOOL

Alberta
LEARNING

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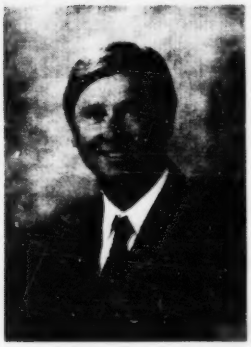
Message from the
Minister of Learning



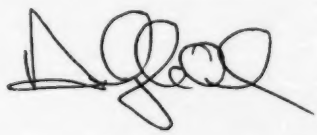
High school represents the time when young people begin to take on the responsibilities of adulthood. As students move through high school, they are faced with decisions that will determine future opportunities and endeavours.

While students are at the centre of the education system, parents are vital partners. Your involvement in your son's or daughter's education is critical to his or her success. The *Curriculum Handbook for Parents: Senior High School* outlines the different options students can choose to best suit their future needs. I hope this handbook will be one basis on which you and your children discuss what course of action they should take to achieve their goals.

When you know what is expected at school, you can provide the home support your children need. By reading about what they are learning at school and discussing it at home, you are sending a very important message to your children—that you value education. As well, I encourage you to continue working closely with their teachers who can provide you with invaluable information and guidance.

Education is a fundamental part of the Alberta Advantage, and government's goal is for Alberta to have the best-educated students in the world. We can accomplish this only one way—by working *together.* We are all partners in education—parents, teachers, trustees, administrators, community members—and we must work to address issues and help ensure Alberta students acquire the knowledge and skills they need for a successful future.

Our children are our future, and our most important investment.



Dr. Lyle Oberg
M.L.A. Strathmore-Brooks
Minister of Learning

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Introduction to the Senior High School Curriculum Handbook for Parents

This handbook provides parents with information on the knowledge, skills and attitudes students in Alberta are expected to be able to demonstrate when they have completed their senior high school programs. This handbook includes the major topics that students study in each subject, and is based on Alberta Learning's *Program of Studies: Senior High School* and related curriculum documents. A print copy of the *Program of Studies* is kept in all Alberta senior high schools, and electronic copies of individual courses and programs are available for viewing and downloading from the Alberta Learning web site.

Students in Alberta have the opportunity to acquire the knowledge, skills and attitudes needed to be self-reliant, responsible, caring and contributing members of society. They are expected to assume an ever-increasing level of responsibility for their learning as they progress through senior high school.

Guidance and Counselling

Schools and school jurisdictions offer a comprehensive guidance and counselling program for helping individual students meet their growth and developmental needs—educational, personal, social and career. This collaborative program involves the school counsellor and other school staff and is based on a close partnership among school, home and community. Parents are encouraged to consult with school counselling staff regarding the needs of their children.

Special Needs

School boards are required to provide each resident student with an education program, including access to special education programs. If you think that your child may have special needs, talk to the teachers or school counsellor. *Partners During Changing Times* is an information booklet for parents of children with special needs. It provides a general overview of how you can be involved in the education of your children. This document is available on the Alberta Learning web site or by contacting the Special Programs Branch, Edmonton. As well, *A Handbook for Aboriginal Parents of Children with Special Needs* provides information to assist Aboriginal parents in working with schools to meet the special needs of their children. This resource is available for purchase from the Learning Resources Distributing Centre.

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Transitions from High School into Work and Further Learning

Preparing for life and work is a complex process that begins in the early years of schooling and continues throughout our lives. Alberta schools are taking an active role—along with parents and the community—in helping students move successfully from senior high school to further studies and/or the workplace.

To help prepare for their transition, students are encouraged to build on the career planning done in junior high school, and to develop a comprehensive career portfolio. They should investigate several work and learning opportunities and prepare several transition scenarios.

All senior high school courses can assist students in career planning through helping them develop their personal management skills—essential/employability skills—explore learning and work options, and contribute to their career portfolio. Some programs that focus specifically on career development include: Career and Life Management 20, Career and Technology Studies and Work Experience 15–25–35. The Registered Apprenticeship Program, Green Certificate Program, and Integrated Occupational Program also help students make a successful transition into the workplace.

Information on occupations and post-secondary programs is available on the Alberta Learning Information Service web site at <www.ALIS.gov.ab.ca>, through school career centres or counselling offices.

Post-secondary Learning

Learning opportunities beyond senior high school include: university, college, technical institutes, apprenticeship, technical training programs and on-the-job training.

At each grade level, students select courses to meet graduation requirements and build toward their future plans for further education and work/career goals. A senior high school diploma does not guarantee entrance into post-secondary programs. **Students wishing to apply for post-secondary educational programs should begin early to make themselves aware of the entrance requirements, application deadlines and sources of funding at the institutions of their choice.**

Some post-secondary programs recognize senior high school courses for advanced standing, credit or preferred entrance.

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Program Overview

In Alberta, the senior high school program is organized into three years of study, Grade 10 through Grade 12. Some students may take more, or less, than three years to complete their senior high school program. Students are required to stay in school up to age 16.

The Minister of Learning prescribes the graduation requirements for senior high school students, as well as the outcomes that students are expected to achieve in each subject area, through documents called programs of study.

Programs of study are prepared in consultation with classroom teachers, school principals, students, parents, people from business and industry, other community members, superintendents of schools, school trustees, educational associations, post-secondary institutions, and other government departments. Alberta also is working with other provinces and territories, through the Western Canadian Protocol and Pan-Canadian Protocol for Collaboration on School Curriculum, to develop common learning outcomes for students. School boards and their staff determine the teaching methods and materials to be used in helping students achieve the outcomes in the provincial programs of study. Teachers regularly assess student progress and report to students, parents and school administrators.

Courses, Numbers and Sequences

Senior high school course numbers usually designate the grade level as well as the level of academic challenge. The numbers 10–19 designate Grade 10 courses, while the numbers 20–29 designate Grade 11 courses. The Grade 12 courses are designated by the numbers 30–39. Students may choose from alternative course sequences to meet the graduation requirements.

Courses numbered 10–20–30–31 are designed primarily for students planning on entering a university or particular programs in colleges and technical schools.

Courses numbered 13–23–33 are designed primarily for students planning on entering some programs in colleges, technical and trade schools or entering the work force.

Courses numbered 14–24 are designed primarily for students whose success in mathematics and/or science has been limited. Students taking these courses may be eligible for non-technical programs at post-secondary institutions.

Courses numbered 15–25–35 are locally developed.

Courses numbered 16–26–36 are designated for students entering the Integrated Occupational Program.

Most high school courses are offered for 3, 4 or 5 credits. A credit represents the knowledge, skills and attitudes that most students can achieve with approximately 25 hours of instruction.

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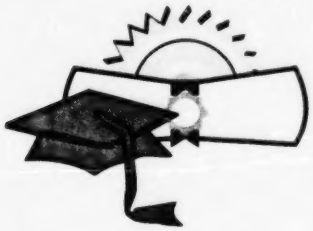
Students may graduate from senior high school with an Alberta High School Diploma or a Certificate of Achievement—Integrated Occupational Program.

Planning for a student's senior high school experience and course selections should involve parents, the school counsellor and/or teachers, and the student. Planning should be based upon student achievement, realistic assessment of ability, and post-secondary and career goals.

Students are responsible for checking their credit status to ensure that the necessary courses and credits will be completed.

Alberta High School Diploma Program



Upon the completion of this program, students receive an Alberta High School Diploma. The minimum diploma requirements are outlined on page 3.

Provincial Diploma Examinations

Students registered in the following courses are required to write diploma examinations:

- Applied Mathematics 30
- Biology 30
- Chemistry 30
- English Language Arts 30
- English Language Arts 33
- Français 30 (francophone–French first language)
- Mathematics 33
- Physics 30
- Pure Mathematics 30
- Science 30
- Social Studies 30
- Social Studies 33

To obtain credit, a student must write the appropriate diploma examination in these 30-level courses and obtain a final mark of 50% or higher. The final mark is the average of the school-awarded mark and the diploma examination mark, except for Applied Mathematics 30 and Pure Mathematics 30, where the diploma examination counts for 20% of the final mark.

Examinations are written at all senior high schools offering the diploma examination courses. Following the examination period, a student receives a results statement showing the most recent school-awarded mark, the current diploma examination mark, and the final mark for each course. A student may apply for rescoring or rewriting an examination. There is a fee associated with rescoring and rewriting. A student concerned about a school-awarded mark may appeal to the school principal. Information about provincial diploma examinations is available at all senior high schools. As well, information is available in the *General Information Bulletin, Diploma Examinations Program.* This bulletin is available on the Alberta Learning web site.

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Alberta High School Diploma Requirements

Credits	Minimum Alberta High School Diploma Requirements		
15	English Language Arts 10/13	English Language Arts 20/23	English Language Arts 30/33
15	Social Studies 10/13	Social Studies 20/23	Social Studies 30/33
10	Applied Mathematics 10, or Pure Mathematics 10, or Mathematics 14, or Mathematics Preparation 10	Applied Mathematics 20, or Pure Mathematics 20, or Mathematics 23/24	
10	Science 10/14	Science 20/24, or Biology 20, or Chemistry 20, or Physics 20	
3	Physical Education 10		
3		CALM 20	
56	**Total Specified Credits**		
44	**Unspecified Credits**	10 credits must be 30/33 level, in addition to English language arts and social studies, **and** 10 credits must be from fine arts, Physical Education 20/30, second languages, career and technology studies, or locally developed courses.	
100	**Total Credits**		

Immersion/Bilingual Programs

Immersion language programs at the senior high school level are usually extensions of programs begun at the elementary level, often called Early Immersion, or at the junior high school level, often called Late Immersion. Bilingual programs are partial immersion programs that generally begin at the elementary level.

French Immersion

This is a program in which French is the language of instruction for a significant part of the school day; that is, several or all subjects are taught in French. Immersion is designed for students whose first language is not French. The objective is full mastery of the English language, functional fluency in French, as well as an understanding and appreciation of the French culture. The expected outcome is related to the total amount of exposure to the language. At the senior high school level, immersion programs are usually extensions of Early or Late immersion programs, beginning in Kindergarten/Grade 1 and Grade 6/ Grade 7 respectively. Students continue to take French language arts and receive instruction in French in at least one other 5-credit course. French language versions of most senior high school courses are available. Students taking courses that have diploma examinations may write these examinations in French or in English.

Partial Immersion (Bilingual) Programs

Students who are registered in French or Ukrainian partial immersion/bilingual programs are expected to follow the appropriate language arts course sequence: French Language Arts (FLA 10–20–30) or Ukrainian Language Arts (ULA 10–20–30).

The main goals of the programs are:

- to help students develop language competencies in oral communication (listening and speaking skills), reading and writing
- to help students understand social and cultural values in various contexts.

School districts may also develop language programs to meet local needs. Contact individual schools for information about the language programs they offer.

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Certificate of Achievement Program

The Integrated Occupational Program (IOP) is a program of choice available in selected schools. The program begins in Grade 8, although students may also enter in grades 9, 10 or 11, and continues through Grade 12. IOP is designed for students who require an integrated program that enhances their academic and occupational competencies and their abilities to enter into employment and/or post-secondary training directly from high school. Upon successful completion of the IOP, students earn a Certificate of Achievement.

IOP is designed for students whose learning styles, abilities and needs are best met through an integrated, real-life approach to teaching and learning. The courses provide functional and practical, hands-on learning experiences. IOP students demonstrate reading, writing, computational and other levels of achievement below those of their age peers, which tends to make it difficult for them to experience success in a diploma program.

Students experiencing success in IOP, may transfer to the diploma program. These students must then complete the necessary courses in order to obtain an Alberta High School Diploma. This will vary depending on the point at which the student transfers.

Eligible Courses and Credits★ for the Certificate of Achievement	
A. IOP CORE Courses and (Credits)	Alternative Courses and (Credits)
English Language Arts 16 (3), 26 (3), 36 (3)	A minimum of 10 credits in English Language Arts, including 5 credits in English Language Arts 23
Social Studies 16 (3), 26 (3)	Social Studies 13 (5)
Mathematics 16 (3)	Mathematics 14 (5)
Science 16 (3)	Science 14 (5)
TOTAL 21 CREDITS	TOTAL 25 CREDITS
B. Physical Education 10 (3) Career and Life Management 20 (3)	
C. IOP Occupational Courses A minimum of 40 credits from the occupational clusters: • agribusiness • business and office operations • construction and fabrication • creative arts • natural resources • personal and public services • tourism and hospitality • transportation	Grade 10 (16 level)—10 credits required Grade 11 (26 level)—20 credits required Grade 12 (36 level)—10 credits required
D. Unspecified Credits To meet the minimum credit requirement for the Certificate of Achievement, students must take additional unspecified courses. The number of unspecified credits available will depend upon the student's selection of IOP courses or alternative courses listed in Part A.	

Total Required Credits = 80

★ Numbers in parentheses indicate the credit value of each course.

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Completing the Senior High School Program Planner

The program planner provided is a useful tool for parents and students to:

- select courses that are interesting and challenging
- develop the competencies required for entry into post-secondary programs and/or the workplace
- ensure the requirements for an Alberta High School Diploma or Certificate of Achievement are met.

Some senior high schools may use a similar program–career planner of their own.

To complete the planner on page 6:

- In the column entitled Grade 9 (on the following page), fill in the most current report card marks in each subject. Then, in the optional section, write the names of the optional courses taken in Grade 9 and the marks received.
- Select the Grade 10 required courses and circle the course name, number and credit value in the appropriate columns. Plan a schedule, using the following as guidelines only: Grade 10—suggested minimum, 40 credits; Grade 11—suggested minimum, 35 credits; Grade 12—suggested minimum, 30 credits.
- Select from optional courses available those that will lead to a senior high school diploma and will help earn at least 40 credits in Grade 10.
- As marks in Grade 10 are received, fill out the Grade 10 marks column. Use these marks as guidelines for planning Grade 11 courses.
- Students must achieve a minimum mark of 50% in a course at one level in order to advance to the next higher course in that program sequence.

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Senior High School Program Planner

GRADE 9		GRADE 10			GRADE 11			GRADE 12			
Course Name	Latest Marks	Course Name	Marks	Credits	Course Name	Marks	Credits	Course Name	Marks	Credits	Total Credits
English Language Arts		English Language Arts 10, 13 (16)		5 (3)	English Language Arts 20, 23 (26)		5 (3)	English Language Arts 30, 33 (36)		5 (3)	
Social Studies		Social St. 10, 13 (16)		5 (3)	Social St. 20, 23 (26)		5 (3)	Social St. 30 or 33		5	
Mathematics	★	Math Prep 10 / Applied Math 10/ Pure Math 10 / Math 14 (16)		5 (3)	Applied Math 20/ Pure Math 20 Math 23, 24 (26)		5 (3)	Applied Math 30/ Pure Math 30 and/or Math 33/Math 31		5	
Science		Science 10, 14 (16)		5 (3)	Biology 20			Biology 30		5	
					and/or Chemistry 20			and/or Chemistry 30		5	
					and/or Physics 20			and/or Physics 30		5	
					and/or Science 20, 24 (26)		5 (3)	and/or Science 30		5	
Physical Education		Physical Education 10		3, 4 or 5	CALM 20		3, 4 or 5				
Optional Courses		Optional† Courses			Optional† Courses			Optional† Courses			
		Total Credits			Total Credits			Total Credits			

To qualify for a Certificate of Achievement, IOP students must earn a minimum of 80 credits, 40 of which are to be from the IOP Occupational Courses on page 4. Ten credits must be taken in each of Grade 10, 11 and 12.

★ Students enrolling in Grade 10 can choose from several mathematics courses: Mathematics Preparation 10 (in some schools), Applied Mathematics 10, Pure Mathematics 10, Mathematics 14 or Mathematics 16 (in some schools).

† Remember—To earn a senior high school diploma, the selection must include 10 credits in career and technology studies, fine arts, second languages or Physical Education 20–30 and 10 credits in 30-level courses in addition to English language arts and social studies.

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Alberta students can learn in a variety of ways—in school, in the community, in small or large groups, and independently.

Off-campus Education

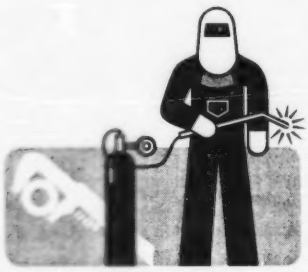
Off-campus education is a partnership among schools, employers and students that supports and enhances student learning. The learning experiences provided allow students to expand pathways into the workplace and to explore career interests and abilities. Programs within off-campus learning include:

- Work Experience 15–25–35—This sequence of courses is available to senior high school students. Students work with an employer to complete individually defined learning experiences. One credit is earned for each 25 hours of experience. Students are required to complete the Career Transitions CTR1010 Job Preparation 1-credit course as a prerequisite or corequisite to their first work experience course.
- Work Study—Work study involves having students spend part of their school day in one or more workplaces in order to enhance and extend their classroom learning. This program is available to junior and senior high school students.

Some educational experiences outside of regular school programs may be eligible for senior high school credits; e.g., music courses completed by private study, through Conservatory Canada, the Royal Conservatory of Toronto or Mount Royal College, Calgary. Consult the student's school for further information.

Registered Apprenticeship Program

The Registered Apprenticeship Program (RAP) allows students to begin apprenticeship in any of the 52 trades designated for apprenticeship by Alberta Learning while earning an Alberta High School Diploma. Students are indentured as regular apprentices and receive senior high school credits for the RAP courses completed and related to the trade in which they are working. RAP students earn wages for their off-campus work. Students, many of whom begin their RAP experience in Grade 10 or Grade 11, are responsible for finding an employer willing to indenture them. Information about the RAP designated trades or any other aspect of senior high school off-campus programs is available from Alberta Learning and from the local senior high school.



RAP Scholarship

The Alberta Apprenticeship and Industry Training Board Registered Apprenticeship Program Scholarship, known as the RAP Scholarship, will annually recognize the academic and trade-related accomplishments of up to 50 high school students who are taking part in the Registered Apprenticeship Program. This scholarship will provide $1000 each to continue into a regular apprenticeship program after the completion of high school.

To qualify for the scholarship, RAP apprentices must:

- plan to continue into a regular apprenticeship program
- achieve an Alberta high school diploma or certificate of achievement

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- have completed a minimum of 250 hours of work experience in RAP
- get a recommendation from an employer, supervisor or journeyman stating that they should continue in the apprenticeship program with the goal of becoming a Certified Journeyman.

Additionally, apprentices will be asked to provide:

- a personal statement indicating why he or she is a "good fit" for a career in a trade
- a high school transcript
- additional comments from an employer, supervisor or journeyman.

The RAP Scholarship will be administered through the Alberta Heritage Scholarship Fund. Application forms will be available in Spring 2001.

Additional information about the Alberta Heritage Scholarship Fund, and its awards, is available on the Internet at <http://www.alis.gov.ab.ca/scholarships>.

Green Certificate Program

The Green Certificate Program for high school students allows students in Grades 10, 11 and 12 to participate in an agriculture-related apprenticeship, earn credits, and complete the Technician Level of a Green Certificate in any one of seven specializations. Alberta Agriculture, Food and Rural Development, and Alberta Learning jointly administer the Green Certificate Program. Information about the Green Certificate Program is available from Alberta Learning, from Alberta Agriculture, Food and Rural Development, and from local high schools situated in agricultural regions of Alberta.

Distance Learning

For courses not offered at the school, students may be able to take a portion of their senior high school program through distance education. The programs use material based on the Alberta program of studies. Instruction is contained within the material and is supplemented by a tutor–marker. Further information on distance learning can be obtained from the local school.

Post-secondary Information

Admissions

School staff are available to assist students in applying to post-secondary institutions. **Students are responsible for becoming aware of post-secondary entrance requirements, application procedures and deadlines. It is also the student's responsibility to request that an official Alberta Learning transcript be sent to post-secondary institutions.** Request forms are available at schools and should be sent well in advance of application deadlines.

Scholarships

Alexander Rutherford Scholarship

Students can earn a maximum of $2500 toward their post-secondary education through Alexander Rutherford Scholarships. These scholarships are awarded to students when they enroll in post-secondary institutions and have earned an 80% average in five high school courses, one of which must be a language arts course, at each grade level. Students earn $400 in Grade 10, $800 in Grade 11 and $1300 in Grade 12, if they meet the following criteria.

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Grade 10	Grade 11	Grade 12

Average 80% or higher in five subjects:
• English Language Arts 10, 13 or Français 10, Français 13
• at least two of the following:
  • Applied Mathematics 10 or Pure Mathematics 10
  • Science 10
  • Social Studies 10
  • any one language other than the one used above at the Grade 10 level
• any two other subjects at the Grade 10 level, including those listed above
	Average 80% or higher in five subjects:
	• English Language Arts 20, 23 or Français 20, Français 23
	• at least two of the following:
	  • Applied Mathematics 20 or Pure Mathematics 20
	  • Science 20
	  • Biology 20
	  • Chemistry 20
	  • Physics 20
	  • Social Studies 20
	  • any one language other than the one used above at the Grade 11 level
	• any two other subjects at the Grade 11 level, including those listed above
		Average 80% or higher in five subjects:
		• English Language Arts 30, or Français 30
		• at least four of the following:
		  • Applied Mathematics 30
		  • Pure Mathematics 30
		  • Mathematics 31
		  • Science 30
		  • Biology 30
		  • Chemistry 30
		  • Physics 30
		  • Social Studies 30
		  • any one language other than the one used above at the Grade 12 level (3000 series courses)
		Note: CTS courses cannot be used at the Grade 12 level.

CTS Courses. Three 1-credit courses can be combined and used as an option at the Grade 10 and/or Grade 11 level. • To be combined, all courses must be from the same level. • The average mark of the three courses may be used as one of the other subjects at the appropriate level.		

Students typically apply for an Alexander Rutherford Scholarship in the spring of their Grade 12 year, and the award is paid during the first semester of post-secondary studies. Individual school boards, schools, post-secondary institutions, businesses and community organizations also offer scholarships. Parents and students are strongly encouraged to explore additional scholarship sources to help pay for post-secondary education, such as Fellowships for Full-time Post-Secondary Studies in French.

RAP Scholarship

See page 7 under Registered Apprenticeship Program.

Financial Assistance

Students attending post-secondary institutions may be eligible for a student loan. Information on student loans can be obtained from a school counsellor or by contacting the Students Finance Board, Alberta Learning, which has offices in both Edmonton and Calgary.

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Senior High School Programs of Study

In this section the programs of study are organized by core and optional courses. All students are required to take core courses. Students select from the range of optional courses in keeping with career plans and personal interests.

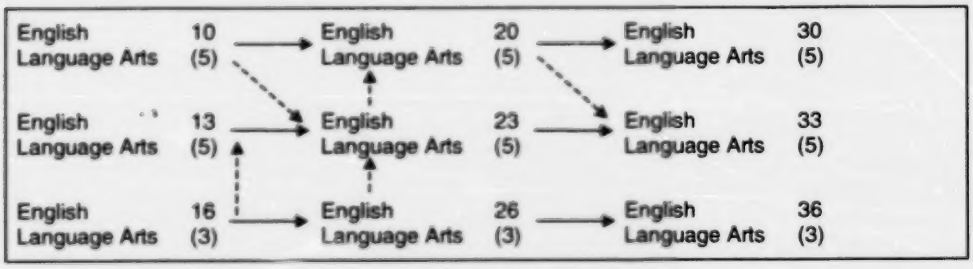
CORE (REQUIRED) COURSES

Students generally take the prerequisite in a course sequence; e.g., Social Studies 10–20–30. This route, for all courses, is designated by solid arrows. However, Alberta Learning recognizes that students may transfer between course sequences, and these recommended routes are designated by broken arrows.

English Language Arts

In English language arts courses, students are given opportunities to demonstrate their increasing confidence in their use of language and their understanding and appreciation of literature. This is achieved through the integration of the five language arts strands, which include: reading, writing, speaking, listening and viewing. These skills and concepts are developed at each grade level; however, the content of the material is increasingly complex. Students are expected to be able to demonstrate a more sophisticated understanding at each level.

There are three course sequences in senior high school English language arts. Each has been developed to meet the needs, interests, attitudes and future plans of individuals. All these points need to be considered carefully when students are selecting their English language arts programs. Although movement between course sequences is possible, it is important to note that each course has a different focus and set of expectations.


English Language Arts 10 (5)
English Language Arts 20 (5)
English Language Arts 30 (5)
English Language Arts 13 (5)
English Language Arts 23 (5)
English Language Arts 33 (5)
English Language Arts 16 (3)
English Language Arts 26 (3)
English Language Arts 36 (3)

In all programs, student development and growth is reflected through their increased ability to:

- understand and appreciate literature, by:
  - exposure to a variety of literature, language and writers
  - learning through the experiences of others
  - recognizing the connection between literature and life
- communicate ideas and feelings, through:
  - written responses, such as essays, journals and other genres
  - oral discussions and presentations
  - visual presentations

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- refine and focus critical thinking skills, by:
  - considering purpose and techniques used by the author/artist/producer
  - reflecting on, discussing and responding to materials studied
  - better understanding people and society through the experiences of others.

The placement of students into the most suitable course sequence is essential. Learning is most effective when the intentions of the courses and needs of the students are clearly understood by students and parents.

English Language Arts 10–20–30 (5 credits each)

This is a demanding program designed for students with strong reading and communication skills and an interest in literature. Successful completion of English Language Arts 30 is a requirement for entrance to most university and some other post-secondary programs. Students should be able to:

- become actively involved with literature, using effective strategies for appreciation, understanding and critical response
- write effectively, using a variety of techniques and styles to suit the purpose and audience
- speak clearly and effectively in a group and for an audience
- evaluate, use and appreciate visual communication
- listen actively for theme, ideas and details, being aware of the purpose of the communication.

A variety of approaches and resources are used in achieving the goals of each course. The content may be taught through literary genres, such as novels, short stories, essays, poetry and drama—Shakespearean and/or modern. Another approach uses themes, such as relationships and stereotypes, the heroic spirit, war and peace, which incorporate the various literary genres. Resources are selected from an approved list, subject to availability.

Completion of English Language Arts 30 requires the writing of a provincial diploma examination.

English Language Arts 13–23–33 (5 credits each)

This program is designed to help students build confidence as they develop their English language arts skills for school success, future careers and life goals. Successful completion of this program provides access to most certificate/diploma programs in colleges and technical institutions. Students should be able to:

- recognize that the study of literature can fulfill a variety of goals, including reading for information, for understanding, for appreciation and for enjoyment
- write clearly in a manner appropriate to the occasion and grade level, using effective prewriting, researching, organizing and revising strategies
- communicate effectively in groups and for an audience
- understand and evaluate the message and the components that create the message in visual communication

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- use the active process of listening to evaluate the spoken message, being aware of the tone, purpose and validity of spoken communication.

Completion of English Language Arts 33 requires the writing of a provincial diploma examination.

English Language Arts Grade 10 Program Validation

The program of studies for senior high English language arts is being revised. A pilot draft of the *Senior High English Language Arts Program of Studies, April 2000*, has been distributed to schools and is available at the Alberta Learning web site. In 2000–2001, the Grade 10 level of the revised program will be piloted in approximately 32 schools throughout the province. Some students will be involved in piloting one of the Grade 10 courses, either English Language Arts 10G or English Language Arts 10H. Students will receive high school credits for successful completion of these courses. ELA 10G has a standard similar to the current English 13 course. It is designed to help students build confidence as they develop English language arts skills for school success, future careers and life goals. ELA 10H is a higher-level course with a standard similar to the current English 10 course. It is designed for students who have strong reading and communication skills and an interest in the study of English language arts.

English Language Arts 16–26–36 (3 credits each)—Integrated Occupational Program

This program is designed for students who have experienced difficulty with English language arts in the regular program and focuses on the need of the learner to experience success. It assists students in meeting the credit and course requirements of the Certificate of Achievement and parallels materials covered in the previous two programs. Students are provided with opportunities to practise functional communication skills for lifelong application. Students should be able to:

- read for a specific, concrete purpose; e.g., follow directions in the completion of a project
- write for clear, practical communication; e.g., a résumé and covering letter
- speak clearly and confidently; e.g., interviewing skills
- view visual communication with evident understanding of the message; e.g., recognizing main ideas in a film
- engage in active listening; e.g., participate appropriately in a discussion.

It is intended that students should be able to successfully apply their English language arts skills, concepts and attitudes to other subject areas.

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Mathematics

Since September 1998, the senior high school mathematics curriculum has been changing to reflect the Western Canadian Protocol. The Mathematics 10–20–30 program and the Mathematics 13–23–33 program are in the process of being replaced by Applied Mathematics 10–20–30 and Pure Mathematics 10–20–30, with changes in curriculum content to both.

The main goal of mathematics education is to prepare students to:

- communicate and reason mathematically
- use estimation and mental mathematics, where appropriate
- reason and justify their thinking
- select and use appropriate technologies as tools to solve problems
- connect mathematical ideas to other concepts in mathematics, everyday experiences and to other subjects
- appreciate and value mathematics as an integral component of society.

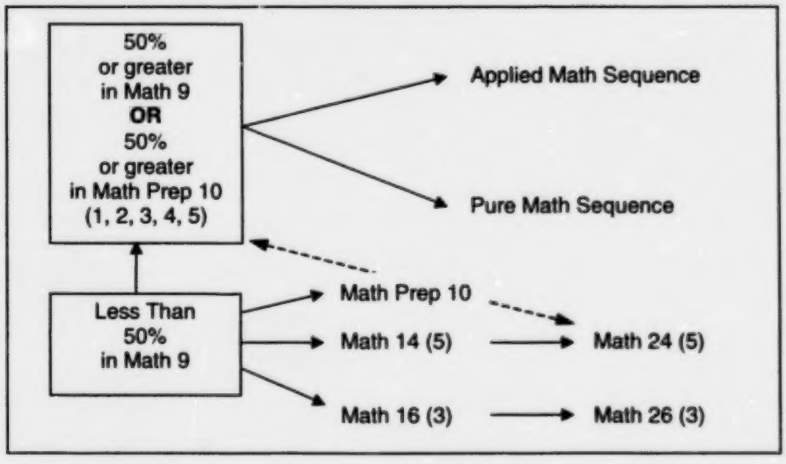
Senior high school students can choose from several mathematics course sequences depending on their preferred learning style and career goals. Applied mathematics emphasizes the application of mathematics and the use of numerical and geometric approaches to solve problems. Pure mathematics emphasizes mathematical theory and the use of algebra and graphing to solve problems. Mathematics 14–24 is designed for those students who wish to meet the minimum mathematics requirements for graduation. Mathematics Preparation 10 is designed for those students who have not met the requirements of junior high school mathematics but desire to take applied or pure mathematics.

Mathematics 16–26 is part of the Integrated Occupational Program, which leads to a Certificate of Achievement.

Students considering post-secondary options should seek guidance when choosing mathematics courses.

For Students Who Entered Grade 10 in September 1998 or Subsequent School Years

Possible Sequences



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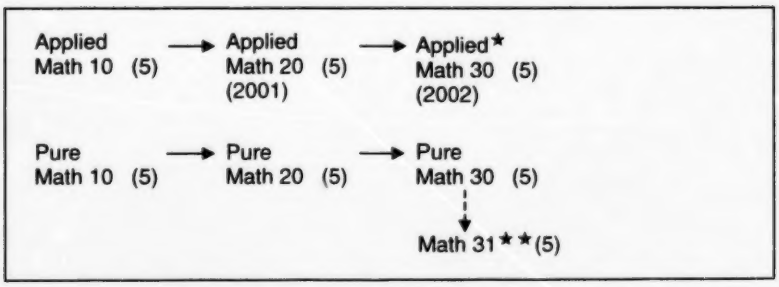
Applied and Pure Sequences



★ This course may be implemented on an optional basis up to two years prior to provincial implementation.

★★ It is desirable that students complete Pure Mathematics 30 before taking Mathematics 31. In some circumstances, students may take Pure Mathematics 30 and Mathematics 31 in the same semester.

Applied Mathematics 10–20–30 and Pure Mathematics 10–20–30 (5 credits each)

These courses are based on two parallel program sequences, one in Applied Mathematics and one in Pure Mathematics, with some material common to both sequences. In Applied Mathematics 10–20–30, emphasis is placed on applications of mathematics rather than on precise mathematical theory. The approaches used are primarily numerical and geometrical; algebraic and graphical methods are used when the contexts require them. In Pure Mathematics 10–20–30, emphasis is placed on mathematical theory. The approaches used are primarily algebraic and graphical; computational methods are used when the contexts require them.

Applied Mathematics 10 is being implemented in all schools in September 2000. Pure Mathematics 10 was implemented in all schools in September 1998. Optional implementation for Applied Mathematics 20 began in September 1999, and provincial implementation is for September 2001. Pure Mathematics 20 was implemented in all schools in September 1999. Optional implementation for Applied Mathematics 30 will begin in September 2000, and provincial implementation is for September 2002. Pure Mathematics 30 is being implemented in all schools in September 2000.

10–level Courses

Students in both Applied Mathematics 10 and Pure Mathematics 10 study:

- spreadsheets for number tables and patterns
- line segments and straight line graphs
- scales, triangles and statistical surveys.

Students in Applied Mathematics 10 study:

- data tables and trends
- imperial and metric measurement.

Students in Pure Mathematics 10 study:

- operations on exponents, polynomials and rational expressions
- irrational numbers and growth patterns.

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20-level Courses

Students in both Applied Mathematics 20 and Pure Mathematics 20 study:

- financial and consumer mathematics
- quadratic functions
- geometry of the circle.

Students in Applied Mathematics 20 study:

- design and layout
- data presentation and inference
- inequalities and linear programming.

Students in Pure Mathematics 20 study:

- solutions to nonlinear equations and linear systems
- operations on functions, including polynomial functions
- mathematical reasoning and proof.

30-level Courses

Students in both Applied Mathematics 30 and Pure Mathematics 30 study:

- statistics of the normal curve.

Students in Applied Mathematics 30 study:

- vectors and matrices
- sinusoidal models
- financial analysis
- process design and costing.

Students in Pure Mathematics 30 study:

- algebraic transformations
- permutations, combinations and probability
- circular functions
- exponential and logarithmic functions
- conic sections.

Completion of Applied Mathematics 30 or Pure Mathematics 30 requires the writing of a provincial diploma examination, counting 20% of the total final mark.

Mathematics Preparation 10 (1, 2, 3, 4 or 5 credits)

This course is designed for students who have not experienced success in Grade 9 mathematics. Mathematics Preparation 10 leads to both the applied and pure mathematics sequences and may be offered for 1, 2, 3, 4 or 5 credits. The content is based on the general outcomes for Grade 9 mathematics, with flexibility for also addressing Grade 7 and Grade 8 outcomes, based on student need.

Students in Mathematics Preparation 10 study the following topics:

- algebra
- proportion, ratio and per cent
- fractions
- problem solving
- number skills
- use of technology.

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Mathematics 31
(5 credits)

This is a highly advanced course designed for students entering post-secondary programs that recommend or stipulate it as an entrance requirement. It is desirable that students complete Pure Mathematics 30 before taking Mathematics 31. In some circumstances, students may take Pure Mathematics 30 and Mathematics 31 in the same semester.

The Mathematics 31 curriculum is comprised of the following required components and their related outcomes:

- precalculus and limits
- derivatives and derivative theorems
- applications of derivatives
- integrals, integral theorems and integral applications.

At least one of the following elective components is included in the Mathematics 31 curriculum:

- calculus of exponential and logarithmic functions
- numerical methods
- volumes of revolution
- applications of calculus to physical sciences and engineering
- applications of calculus to biological sciences
- applications of calculus to business and economics
- calculus theorems
- further methods of integration.

Mathematics 23–33
(5 credits each)

This sequence is designed to prepare students for trades and employment, as well as for many post-secondary diploma programs at colleges.

Mathematics 23
(available in some schools)

Students in Mathematics 23 study the following topics:

- powers and radicals
- algebra
- linear relations
- systems of equations
- probability
- geometry
- trigonometry.

Mathematics 33
(available in some schools)

Students in Mathematics 33 study the following topics:

- powers and radicals
- annuities, mortgages and loans
- statistics
- trigonometry
- polynomials and rational expressions
- relations and functions
- quadratic functions and equations.

Completion of Mathematics 33 requires the writing of a provincial diploma examination.

Mathematics 14–24
(5 credits each)

This sequence is designed for students whose needs, interests and abilities focus on basic mathematical understanding. The emphasis is on the acquisition of practical life skills, and students are provided with opportunities to improve their skills in working with mathematics.

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The mathematics outcomes for both courses are organized into:

- problem solving
- numeration
- geometry
- measurement.

Students in **Mathematics 14** also study:

- ratio and proportion
- statistics and probability
- algebra and graphing.

Students in **Mathematics 24** apply mathematics in the contexts of:

- work
- banking
- transportation
- accommodation
- cost of independence.

Mathematics 16–26 (3 credits each)—Integrated Occupational Program

The Mathematics Integrated Occupational Program is designed to assist students in developing the essential concepts, skills and attitudes of mathematics that are required for responsible participation in the home, the school, the community and the workplace.

The following strands are common to both courses, with the 26 level building on the 16 level:

- problem solving
- use of technology
- computation
- number systems and operations
- ratio, proportion and per cent
- geometry and measurement
- data interpretation and display
- algebra.

Students in **Mathematics 26** also study:

- powers and square roots
- work within a coordinate system
- basic probability.

Science

The senior high school science program is intended to help students attain the scientific awareness needed to be effective members of society. The components included are attitudes, scientific knowledge, mathematical/laboratory skills, critical thinking skills, and connections to science, technology and society. Students are expected to be able to operate in the framework of scientific inquiry as they develop their problem-solving abilities and use technology appropriately.

Learning opportunities are made meaningful so students can relate science to their lives in and out of the classroom. This encourages an interest in science as a lifelong learning experience.

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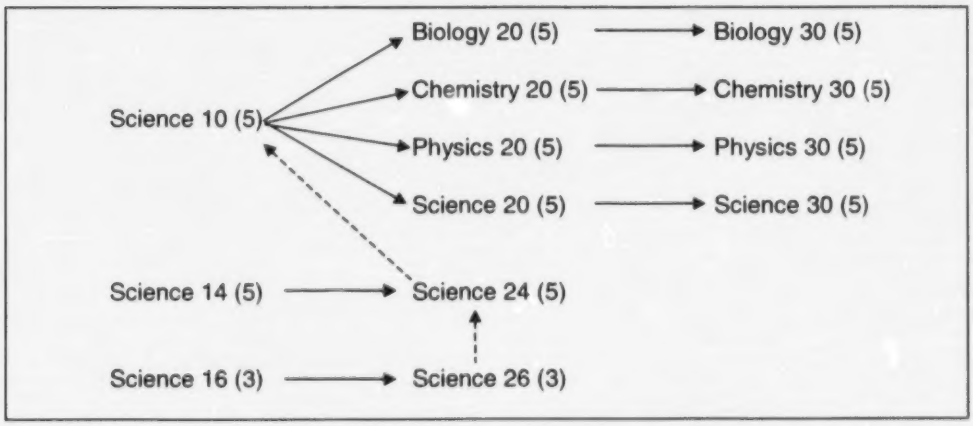
The program consists of many courses. Students have several choices depending on their interests, abilities and future goals, as shown in the following prerequisites chart.

- Science 10 — Academic Integrated Science
- Biology 20–30 — Academic Specialty Science
- Chemistry 20–30 — Academic Specialty Science
- Physics 20–30 — Academic Specialty Science
- Science 20–30 — Academic Integrated Science
- Science 14–24 — General Science
- Science 16–26 — Integrated Occupational Program Science



All senior high school science courses are centred around four general learner expectations:

- attitudes: an enthusiasm for, and a continuing interest in, science
- knowledge: an understanding of the fundamental concepts of science
- skills: scientific inquiry and appropriate use of technology
- **s**cience, **t**echnology and **s**ociety (STS) connections: how scientific knowledge develops, solving problems and making choices.

Science 10 (5 credits)

This academic course provides students with a unified view of the biological, chemical, physical and earth sciences and an awareness of the connections among them. **Science 10 is the prerequisite for all the academic sciences.**

Science 10

The four topics covered are:

- Energy from the Sun
- Energy and Matter in Chemical Change
- Energy and Matter in Living Systems
- Change and Energy.

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Biology 20–30 (5 credits each)

This academic program explores the interactions of living systems with one another and with their environment. In Biology 20, the underlying theme is energy and matter exchange. In Biology 30, the emphasis is on adaptation and change.

Biology 20

The four topics covered are:

- The Biosphere
- Energy and Matter Exchange in Ecosystems
- Energy Flows and Cellular Matter
- Energy and Matter Exchange by the Human Organism.

Biology 30

The four topics covered are:

- Systems Regulating Change in Human Organisms
- Cells, Chromosomes and DNA
- Reproduction and Development
- Change in Populations and Communities.

Completion of Biology 30 requires the writing of a provincial diploma examination.

Chemistry 20–30 (5 credits each)

This academic program is designed to study matter and its changes. Students, through the study of Chemistry 20–30, are given an opportunity to explore and understand the natural world and to become aware of the profound influence of chemistry on their lives.

Chemistry 20

The four topics covered are:

- Matter as Solutions, Acids, Bases and Gases
- Chemical Bonding in Matter
- Quantitative Relationships in Chemical Changes
- The Diversity of Matter: An Introduction to Organic Chemistry.

Chemistry 30

The three topics covered are:

- Thermochemical Changes
- Electrochemical Changes
- Equilibrium, Acids and Bases in Chemical Changes.

Completion of Chemistry 30 requires the writing of a provincial diploma examination.

Physics 20–30 (5 credits each)

This academic program is designed to study matter and energy and their interactions. Physics 20–30 helps students understand the physics principles behind the natural events they experience and the technology they use in their daily lives.

Physics 20

The four topics covered are:

- Kinematics and Dynamics
- Mechanical Waves
- Circular Motion and Gravitation
- Light.

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Physics 30

The four topics covered are:

- Conservation Laws
- Magnetic Forces and Fields
- Electric Forces and Fields
- Nature of Matter.

Completion of Physics 30 requires the writing of a provincial diploma examination.

Science 20–30 (5 credits each)

The Science 20–30 program is designed for the student who is interested in science but does not require specialty courses for post-secondary education.

Science 20

The four topics covered are:

- The Changing Earth
- Chemical Changes
- Changes in Living Systems
- Changes in Motion.

Science 30

The four topics covered are:

- Living Systems Respond to Their Environment
- Electromagnetic Energy
- Chemistry in the Environment
- Energy and the Environment.

Completion of Science 30 requires the writing of a provincial diploma examination.

Science 14–24 (5 credits each)

This program allows students whose success in science has been limited to still meet the credit requirements for an Alberta High School Diploma. The focus is on helping students understand the scientific principles behind the natural events they experience and the technology they use in their lives.

Science 14

The four topics covered are:

- Body Systems
- Investigating the Environment
- Household Science
- Understanding Technology.

Science 24

The four topics covered are:

- Disease Defence
- Materials We Use
- Energy Consumption
- Safe Transportation.

In each course, there are other optional topics that may or may not be offered.

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Science 16–26 (3 credits each)—Integrated Occupational Program

Using a practical approach, this program meets the science requirements of the Integrated Occupational Program. It is designed to enable students to develop entry-level vocational abilities and to recognize the need for lifelong learning. Each of the four themes provides hands-on learning experiences.

Science 16

The four topics covered are:

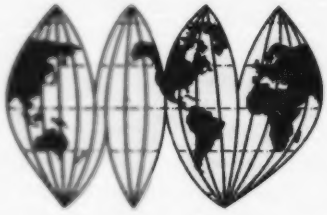
- Systems of the Human Body
- Using Systems and Technologies
- Chemistry for the Consumer
- Caring for Environment and Resources.

Science 26

The four topics covered are:

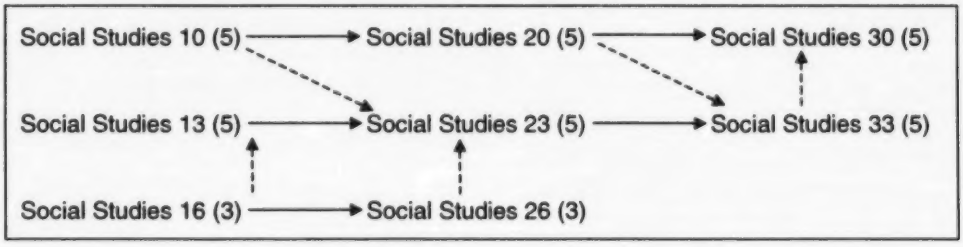
- Personal Health and Lifestyle
- Technology in Transportation
- Materials We Use
- Energy and the Environment.

Social Studies



Responsible citizenship is the ultimate goal of social studies. The responsible citizen is one who is knowledgeable, purposeful and makes responsible choices. Basic to the goal of responsible citizenship is the development of critical thinking. The inquiry process, communication, participation and technological skills are emphasized in order to foster critical thinking.

Citizenship education is based on an understanding of history, geography, economics, other social sciences and the humanities as they affect the Canadian community and the world. Current affairs add considerably to the relevance, interest and immediacy of the material and help to foster lifelong learning skills.


Social Studies 10 (5)
Social Studies 20 (5)
Social Studies 30 (5)
Social Studies 13 (5)
Social Studies 23 (5)
Social Studies 33 (5)
Social Studies 16 (3)
Social Studies 26 (3)

Note: Social Studies 30 and Social Studies 33 may be taken in the same semester. If this occurs, it is the responsibility of the student to ensure that appropriate arrangements are made to write both diploma examinations.

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There are three programs in the social studies curriculum.

In order to accommodate students with a wide range of abilities, needs, interests and aspirations, two course sequences have been developed for this program: Social Studies 10–20–30 and Social Studies 13–23–33. Although the content, skills and attitudes are similar for these two sequences, the expectations for Social Studies 10–20–30 are more challenging, particularly in the depth of concept development, the level of critical and creative thinking, and inquiry skill development. The nature of the approved student resources differs for each sequence.

Social Studies 16–26 has been developed within the Integrated Occupational Program to address the needs of students who have a history of learning difficulties and who learn best through concrete, real-life experiences.

Social Studies 10–20–30 (5 credits each)

Social Studies 10: Canada in the Modern World

This course emphasizes the study and appreciation of Canada and the forces and events that have influenced Canada's development. The course also illustrates how responsible citizenship requires an understanding of the structure and function of government. This includes an examination of:

- development of Canada
- national identity
- structure and function of government
- responsible participation
- sovereignty
- regionalism
- citizenship.

Social Studies 20: The Growth of the Global Perspective

Students examine how the modern world has been influenced by major ideas and forces that have emerged from nineteenth century experience and how economic growth and development have led to increased global interdependence. This course illustrates why a responsible global citizen needs to be aware of the effect history and economic growth have on the interaction of nations. This includes an examination of:

- nationalism
- imperialism
- diversity
- interdependence
- quality of life
- industrialization
- international rivalries and conflict
- disparity
- economic development
- alternative futures.

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Social Studies 30: The Contemporary World

Students are given an opportunity to acquire an understanding of world political and economic systems, the roles of individuals and groups within these systems, and how these systems have struck a balance between collective good and individual interest. Upon completion of the program, students are expected to be able to understand consequences and alternative choices in twentieth century global interactions since the First World War. This includes an examination of:

- twentieth century global interactions
- motive, consequences and alternative choices
- political and economic systems.

Completion of Social Studies 30 requires the writing of a provincial diploma examination.

Social Studies 13–23–33 (5 credits each)

Social Studies 13: Canada in the Modern World

Students examine some of the forces and factors that have shaped Canada and developed its unique identity. Students gain an understanding of the rights and responsibilities of citizenship. This includes an examination of:

- identity
- citizenship
- participation in politics and society
- sovereignty
- rights and responsibilities.

Social Studies 23: The Growth of the Global Perspective

Students are presented with the opportunity to understand the impact of new ideas and changes, past and present, on society. Students recognize the diversity and interrelatedness of the world. This includes an examination of:

- nationalism
- egalitarianism
- interdependence
- disparity
- economic development
- industrialization
- quality of life
- diversity
- alternative futures.

Social Studies 33: The Contemporary World

Students are given an opportunity to acquire an understanding of major political and economic ideas and systems so they can participate as effective and responsible citizens.

Upon completion of the program, students are expected to be able to understand and appreciate how nations have sought to protect and promote their national interests; how individuals and groups contribute to, and are affected by, global interactions; and how these interactions have consequences for their lives and the global community. This includes an examination of:

- political and economic systems
- global interactions in the twentieth century.

Completion of Social Studies 33 requires the writing of a provincial diploma examination.

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Social Studies 16–26 (3 credits each)— Integrated Occupational Program

Social Studies 16

Students gain an understanding of the rights and responsibilities for participation in the Canadian political process and Canadian society. They learn to relate rights, responsibilities and laws to the workplace. This includes an examination of:

- decision making
- resolving disagreement
- Canadian government
- participatory citizenship
- employment
- personal economics
- power and influence
- rights and responsibilities
- tolerance versus prejudice and discrimination.

Social Studies 26

Students gain an understanding of their personal, regional and Canadian identities and how these relate to each other. Students also examine the influence of the global community on Canada and on individual Canadians, and the trends that may influence individual career choices. This includes an examination of:

- Canadian community
- Canadian identity
- historical development
- international involvement
- influences on employment opportunities
- Canadian diversity
- cultural interaction
- Canadian security
- employment opportunities
- community partnerships.

Career and Life Management 20

CALM 20 (3 credits)

Career and Life Management (CALM) 20 is a required course for all senior high school students. This course is designed to assist students to organize and shape their lives occupationally, financially and socially.

The core curriculum is structured into six themes:

- Self-management
- Well-being
- Relationships
- Careers and the World of Work
- Independent Living
- Human Sexuality.★

★ *Parents may withdraw students from this theme by contacting the local school.*

Schools may expand the core curriculum to 4 or 5 credits by adding one or two of the following modules:

- Dealing with Crises
- Entrepreneurship
- Consumer and Investment Choices
- Cultural Bridges.

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Physical Education 10

(3, 4 or 5 credits each)

The physical education program emphasizes active living, with a focus on physical activity that is valued and integrated into daily life.

The aim of the K–12 physical education program is to enable individuals to develop the knowledge, skills and attitudes necessary to lead an active, healthy lifestyle.

Four general outcomes form the basis of the K–12 curriculum. These are interrelated and interdependent. Each is to be achieved through participation in a variety of physical activities from the five dimensions outlined in general outcome A. Each of these general outcomes include specific outcomes at the Grade 10 level.

By the end of Physical Education 10, students will:

General Outcome A

- acquire skills through a variety of developmentally appropriate movement activities; dance, games, types of gymnastics, individual activities and activities in an alternative environment; e.g., aquatics and outdoor pursuits. The specific outcomes focus on:
  - Basic Skills
  - Application of Basic Skills.

General Outcome B

- understand, experience and appreciate the health benefits that result from physical activity. The specific outcomes focus on:
  - Functional Fitness
  - Body Image
  - Well-being.

General Outcome C

- interact positively with others. The specific outcomes focus on:
  - Communication
  - Fair Play
  - Leadership
  - Teamwork.

General Outcome D

- assume responsibility to lead an active way of life. The specific outcomes focus on:
  - Effort
  - Safety
  - Goal Setting/Personal Challenge
  - Active Living in the Community.

Consideration for exemptions from participation in physical education is given for medical conditions, when accompanied by medical certification from a doctor to the principal; for religious beliefs, when accompanied by a statement in writing from a parent to the principal and where access to facilities is prohibitive. When exemption is granted, activities consistent with the outcomes of the specific dimension should be substituted where appropriate.

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Information and Communication Technology (ICT)

The ICT curriculum provides a broad perspective on the nature of technology, how to use and apply a variety of technologies, and the impact of ICT on self and society. Students in Kindergarten through Grade 12 will be encouraged to grapple with the complexities, as well as the advantages and disadvantages, of technologies in our lives and workplaces.

Technology is about the way things are done; the processes, tools and techniques that alter human activity. ICT is about the new ways in which we can communicate, inquire, make decisions, manage information and solve problems.

The ICT curriculum is not intended to stand alone as a course, but rather to become a part of core courses and programs.

The ICT curriculum will be implemented in all schools in Alberta over a three-year period, starting September 2000 through to June 2003.

General and Specific Outcomes

General outcomes for the ICT curriculum are statements that identify what students are expected to know and be able to do and value by the end of grades 1–3, 4–6, 7–9 and 10–12. There is a progressive sequence of skill development throughout the grades. Specific outcomes expand on the general outcomes and state in more detail what students are expected to learn. ICT outcomes are organized into three main categories, as shown in the charts below. For each category, all the general outcomes themselves also are listed.

Communicating, Inquiring, Decision Making and Problem Solving	
C1	Students will access, use and communicate information from a variety of technologies.
C2	Students will seek alternative viewpoints, using information technologies.
C3	Students will critically assess information accessed through the use of a variety of technologies.
C4	Students will use organizational processes and tools to manage inquiry.
C5	Students will use technology to aid collaboration during inquiry.
C6	Students will use technology to investigate and/or solve problems.
C7	Students will use electronic research techniques to construct personal knowledge and meaning.

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Foundational Operations, Knowledge and Concepts	Processes for Productivity
F1 Students will demonstrate an understanding of the nature of technology.	P1 Students will compose, revise and edit text.
F2 Students will understand the role of technology as it applies to self, work and society.	P2 Students will organize and manipulate data.
F3 Students will demonstrate a moral and ethical approach to the use of technology.	P3 Students will communicate through multimedia.
F4 Students will become discerning consumers of mass media and electronic information.	P4 Students will integrate various applications.
F5 Students will practise the concepts of ergonomics and safety when using technology.	P5 Students will navigate and create hyperlinked resources.
F6 Students will demonstrate a basic understanding of the operating skills required in a variety of technologies.	P6 Students will use communication technology to interact with others.

Examples of Specific Outcomes

By the end of Grade 12, students are expected to:

- demonstrate an understanding of the basic principles and issues of e-commerce, including such topics as security and privacy, marketing, and implications for governments, businesses and consumers alike
- assess the strengths and weaknesses of computer simulations in relation to real-world problems
- generate new understandings of problematic situations by using some form of technology to facilitate the process.

The ICT curriculum, along with support documents, can be found on the Alberta Learning web site.

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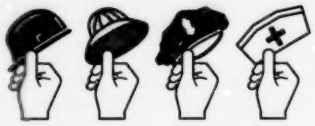
OPTIONAL COURSES

Career and Technology Studies



Career and technology studies (CTS) provides students with practical, hands-on learning experiences in the areas of personal interest, applied technology and general career exploration. In CTS, students have the opportunity to use and apply technology effectively and efficiently to solve problems and/or produce usable products within a personally relevant working environment.

Students in career and technology studies are expected to be able to:

- develop skills that can be applied in their daily lives now and in the future
- refine career planning skills
- develop technology-related skills
- enhance employability skills
- apply and reinforce learning developed in other subject areas.

Integrated throughout CTS are employability skills, those basic competencies that help students develop their personal management and social skills. Employability skills allow the students to transfer knowledge and technical skills to the workplace. Personal management skills are improved as students take increased responsibility for their learning, design innovative solutions to problems and challenges, and effectively and efficiently manage resources, including time. Social skills are improved through learning experiences that require students to work effectively with others, demonstrate teamwork and leadership, and maintain high standards in safety and accountability.

The career and technology studies program is organized into strands and courses. See the table that follows. A strand is a group of 1-credit courses that support a wide range of career and occupational opportunities within one particular category. From 22 strands, schools select those 1-credit courses that are most relevant for the students and the community. Each course defines what students should know and be able to do and, in general, takes about 25 hours to complete, although some students may need less or more time. At the senior high school level, one course, successfully completed, equals 1 credit. Courses are organized into three levels of achievement: introductory, intermediate and advanced. As students progress through the levels, they are expected to be able to demonstrate an increased degree of competency. In senior high school, students can continue to build on what they have learned in junior high school, developing career-specific skills that will help them make a smooth transition into adult roles in the family, community, workplace or further education.

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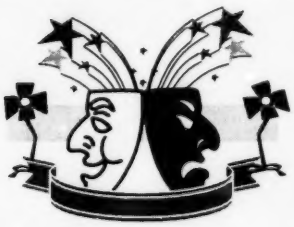
Career and Technology Studies Strands

Strand	No. of Available Courses	Strand	No. of Available Courses
Agriculture	33	Fashion Studies	29
Career Transitions	31	Financial Management	14
Communication Technology	33	Foods	37
Community Health	31	Forestry	21
Construction Technologies	46	Information Processing	48
Cosmetology Studies	58	Legal Studies	13
Design Studies	31	Logistics	12
Electro-Technologies	37	Management and Marketing	20
Energy and Mines	26	Mechanics	54
Enterprise and Innovation	8	Tourism Studies	24
Fabrication Studies	41	Wildlife	17

The CTS program offered in each school will vary depending on availability of staff and facilities, and interests and needs of students, parents and community. Parents are encouraged to visit their local school to determine which CTS courses are being offered.

Fine Arts



The fine arts program, comprised of art, drama and music, encourages and develops personal expression through artistic activities. These programs encourage students to appreciate, understand, create, critique and, most of all, enjoy the products of their own making. The programs provide the opportunity for students to use not only their minds but also their voices, hands and bodies. Art, drama and music enhance the core senior high school experiences and cultivate well-rounded individuals. Content and opportunities within these programs depend upon the resources available to each school.

Art

Art 10 → (3, 4 or 5 credits)	Art 20 → (3, 4 or 5 credits)	Art 30 (5 credits)
Art 11 → (3, 4 or 5 credits)	Art 21 → (3, 4 or 5 credits)	Art 31 (5 credits)

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Art 10–20–30

This sequence of general art courses is primarily a studio-based program emphasizing a variety of media. Students have the opportunity to explore visual expression and establish the groundwork for artistic skills. The program consists of three general areas of visual learning:

- drawings: how visual information is seen and presented; developing technical and critical skills
- compositions: how images are designed; creating meaning visually
- encounters: how visual images evoke responses and interpretation; exploring art across history and tradition.

Art 11–21–31

This sequence of courses is primarily a nonstudio-based program, examining the role of art in our lives, how we create it, and how we react to it. Rather than creating art, the focus is on how and why art has become a central part of our world. The student is given the opportunity to assume the role of insightful critic and art historian. The program consists of three general areas of learning in visual art:

- function: how images are used to express and reflect society's values, beliefs and issues
- creation: the achievements and methods of artists throughout history and in different cultures
- appreciation: how the visual qualities in works of art are seen and responded to.

Drama

Drama 10 (3 or 5 credits) → Drama 20 (3 or 5 credits) → Drama 30 (5 credits)

Drama 10–20–30

Drama 10–20–30 includes eight distinct disciplines, each with its own particular goals and study requirements. Drama provides the opportunity for a thorough introduction to the theatre experience, developing both technical and performance-based skills. Similar to all fine arts programs, drama develops personal expression but goes further by teaching the skills needed to work creatively with others. The following chart shows which discipline areas are required learning for each course level.

	Drama 10	**Drama 20**	**Drama 30**
Disciplines	Orientation	Orientation	Orientation
Movement	yes		
Speech	yes	yes	yes
Improvisation	yes	yes	yes
Acting		yes	yes
Theatre Studies	yes★	yes★	yes
Technical Theatre Design	yes	yes	yes
Playwriting		yes	
Directing			yes

★only when course is offered for 5 credits

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Music

Instrumental Music 10 (3 or 5 credits)	→ Instrumental Music 20 (3 or 5 credits)	→ Instrumental Music 30 (5 credits)
Choral Music 10 (3 or 5 credits)	→ Choral Music 20 (3 or 5 credits)	→ Choral Music 30 (5 credits)
General Music 10 (3 or 5 credits)	→ General Music 20 (3 or 5 credits)	→ General Music 30 (3 or 5 credits)

Instrumental Music 10–20–30 and Choral Music 10–20–30

Through Instrumental Music 10–20–30 and Choral Music 10–20–30, the student develops musical abilities by playing/singing, listening, reading and creating music. These programs consist of three general areas of learning:

- performing: how musical skills are developed; building knowledge and awareness
- listening: how music is understood; appreciating musicians throughout history
- composing: how musical compositions are created; organizing elements of music.

General Music 10–20–30

General Music 10–20–30 is ideal for students interested in nonperformance-based musical experiences. Students are required to complete the following components:

- theory: how and why music is produced; appreciating the theory, the history and the sound of music
- music making: music performance leading to self-evaluation; encountering music by playing
- electives: may include the following: Composition, History of Western Music, Music and Technology, World Music, Careers in Music, Jazz Appreciation, Popular Music.

Physical Education 20–30

(3, 4 or 5 credits each)

The aim of the K–12 physical education program is to enable individuals to develop the knowledge, skills and attitudes necessary to lead an active, healthy lifestyle.

These optional courses continue to emphasize active living, with a focus on physical activity that is valued and integrated into daily life. A wide variety of activities, often with use of community facilities, are offered.

Four general outcomes form the basis of the K–12 curriculum. These are interrelated and interdependent. Each is to be achieved through participation in a variety of physical activities from the five dimensions outlined in general outcome A.

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At the Physical Education 20–30 level, each of these general outcomes include specific outcomes that emphasize the ability to analyze and apply the knowledge, skills and attitudes they have developed at earlier grades. Both Physical Education 20 and Physical Education 30 have grade specific outcomes. The outcomes for Physical Education 20 are a prerequisite for those in Physical Education 30.

By the end of Physical Education 20 or 30, students will:

General Outcome A

- acquire skills through a variety of developmentally appropriate movement activities; dance, games, types of gymnastics, individual activities and activities in alternative environment; e.g., aquatics and outdoor pursuits. The specific outcomes focus on:
  - Basic Skills
  - Application of Basic Skills.

General Outcome B

- understand, experience and appreciate the health benefits that result from physical activity. The specific outcomes focus on:
  - Functional Fitness
  - Body Image
  - Well-being.

General Outcome C

- interact positively with others. The specific outcomes focus on:
  - Communication
  - Fair Play
  - Leadership
  - Teamwork.

General Outcome D

- assume responsibility to lead an active way of life. The specific outcomes focus on:
  - Effort
  - Safety
  - Goal Setting/Personal Challenge
  - Active Living in the Community.

Second Languages

Alberta provides a number of language study opportunities that help to develop individual potential and better prepare students for daily living and the challenges of an international world of work and travel. These programs allow students to acquire language skills in situations that reflect life experiences. Students who take second language programs may continue to use their language skills in work, educational or travel settings. Placement in senior high school language programs depends upon individual language proficiency. Students receive 5 credits for 125 hours of course work.

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Blackfoot Language and Culture 10–20–30 (5 credits each)
Cree Language and Culture 10–20–30 (5 credits each)

These two programs have three-course sequences at the senior high school level; however, students may begin study at an earlier age. Upon completion of a program, students express themselves in speech and have an awareness and appreciation of the oral culture of Aboriginal peoples. The contributions of Elders and other members of the community are an important aspect of each program.

Locally developed and locally approved courses are also available. Contact local schools for information about which language programs they offer.

French Language Arts

At the senior high school level, the French Language Arts program of studies is intended to develop the students' ability to think critically and analytically so that they might react appropriately to the contents of media products and techniques. Viewing (and analyzing) media also help students cultivate an appreciation of the cultural reality of the Canadian and international francophonie. The aim of the French Language Arts program is also to increase student awareness of the elements that ensure message clarity, such as exact, precise words and expressions, and increasingly complex, correct sentences. Students learn to respect the basic rules of the language in organized verbal exchanges in the classroom as well as in written projects. By acquiring a select store of language, they equip themselves to understand, deepen, clarify and express increasingly abstract thoughts. The program is also intended to develop the students' ability to plan and monitor their communication projects whether they are working individually or with partners in the classroom.

In **oral comprehension**, students learn to pay particular attention to the organization of a message (genre) and choose the most effective means of taking notes and acquiring in-depth knowledge of a subject.

In **reading comprehension**, students at the senior high level continue to develop their ability to read by tackling increasingly complex texts. They increase their ability to analyze text characteristics in order to better understand the internal organization (genre) and take into account the information gathered on the author and the author's intent before reading a text.

In **oral production**, students learn the vocabulary and syntax that will enable them to express themselves in various contexts. They develop the ability to plan projects by taking into account the characteristics of the audience and using various means to interact effectively in a discussion.

In **writing**, students learn to organize and formulate their ideas clearly while respecting the rules of internal organization of texts (genre) as well as the rules of grammatical spelling. They also learn to edit their own texts using various reference works.

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At the senior high school level, learning occurs primarily through:

- group work situations
- the reading to students of newspaper and magazine articles, short stories, or excerpts from plays or novels
- listening to audio texts, such as songs, poems and documentaries
- viewing audiovisual materials.

Teachers will select, for their students, texts:

- dealing with information, opinions and current events
- from the imaginary world; e.g., novels, plays and songs
- that are explanatory, analytical and argumentative.

As for the development of reading strategies, students learn to read and understand a text by taking into account its organization (explanatory, analytical and argumentative types) and developing various means of annotating a text.

The proposed situations should allow students to demonstrate what they already know, what they have already learned about a given subject, or to express their opinions based on examples from their readings, their interactions with others, and so on. The topics chosen for the presentations may be from other subject areas, such as social studies and science.

The presentations and interactive situations should be well-structured, with emphasis on:

- use of expressions or words to describe events, projects and experiences
- use of expressions or words to indicate clearly their point of view or to express nuances
- planning of discourse while taking into account the particular characteristics of the audience
- effective intervention monitoring in an interactive situation.

Students learn to write argumentative texts, text summaries and argumentative/analytical texts.

The purpose of these situations is primarily to enable students to integrate the basics of the written language by:

- developing a plan based on procedures appropriate for the genre
- consulting reliable sources to ensure text quality
- modifying certain components of the text to render it more precise or to enrich it
- verifying the effectiveness of the procedures used
- respecting the language mechanisms to be used at each level
- using reference works effectively
- assessing their ability to evaluate their efficiency in managing or monitoring certain elements of the task.

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French as a Second Language

French 13–**10–20–30**–31a–31b–31c
Course sequence in bold print refers to the minimum standard expected upon completion of a senior high school French as a second language program.

The French as a second language program at the senior high school level consists of seven courses. French 13 and 10 are beginning level courses, French 20 and 30 are intermediate level courses and French 31a, 31b and 31c are advanced level courses. Placement in a French as a second language course depends upon language proficiency at the entry levels. For example, a student who has already mastered the beginning level of French before entering senior high school may be placed in French 20 instead of French 10. While the high school leaving level is usually French 30, an advanced proficiency program is also available in some schools. This program consists of French 31a, 31b and 31c.

These courses are sequential, and students demonstrate the appropriate language proficiency before proceeding to the next level.

French 13–10 (Beginning Level Courses), French 20–30 (Intermediate Level Courses)—5 credits each

Students produce and comprehend:

- French 13: simple spoken and written statements, using a basic vocabulary
- French 10: a greater variety of spoken and written statements
- French 20: a series of interrelated ideas on a familiar topic in structured situations
- French 30: both simple and complex statements on a variety of topics in both structured and unstructured situations.

French 31a–31b–31c (Advanced Level Courses)—5 credits each

Students develop advanced level language skills, by:

- French 31a: providing main points and supporting details, and understanding and interpreting the main points of a communication
- French 31b: generating more complex ideas in a coherent way through various types of communication requiring some spontaneous responses
- French 31c: engaging in more extensive and spontaneous communication.

German 10–20–30–31 (5 credits each)

This is a three- or four-course sequence depending on the student's level of proficiency upon entering senior high school. The program goals are to promote the development of the knowledge, skills and attitudes required to interact effectively in the German language and to increase awareness of German culture worldwide.

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Italian 10–20–30
(5 credits each)

This is a three-course sequence. Students acquire basic communication skills, develop cultural sensitivity, and develop originality and creativity in language use.

Japanese Language and Culture 10–20–30
(5 credits each)

This is a three-course sequence subdivided into five stages, each of which has five sublevels. The five stages are Introduction to Japan, Japan Today, Japan and the World, Japan Tomorrow and a specialized area of study. Upon completion of the program, students achieve a minimum of all five levels at Stage Three, if they are not native speakers. If they are native speakers, they master all five levels at Stage Five.

Latin 10–20–30
(5 credits each)

This is a three-course sequence with an emphasis on language history. Students gain a knowledge of vocabulary and grammar as they relate to modern languages, as well as an appreciation of Latin's impact upon the history of language in general.

Spanish 10–20–30
(5 credits each)

This is a three-course sequence. Students develop basic communication skills, cultural sensitivity, and originality and creativity in language use.

Ukrainian 10–20–30
(5 credits each)

Ukrainian 10–20–30 is a three-course sequence. Students who began the study of Ukrainian in junior high school should follow the Ukrainian 10S–20S–30S sequence. Upon completion of the programs, students are able to express themselves on familiar topics in speech and in writing and read for information, as well as appreciate and understand the Ukrainian culture.

Ukrainian Language Arts 10–20–30
(5 credits each)

This is a three-course sequence for students who study Ukrainian in the Ukrainian Bilingual Program. Students develop Ukrainian language skills, become sensitive to cultural differences and recognize the contribution of the lifestyle of Ukrainians to the wider community.

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Frequently Asked Questions

Question: *What is a credit?*
Answer: One credit is equivalent to the learner outcomes that most students can achieve in 25 hours of instruction. Students in Alberta are required to earn 100 credits to qualify for an Alberta High School Diploma.

Question: *Do students have spares?*
Answer: Students may choose to have study periods in senior high school depending upon their school's policies/guidelines. It is very possible for students to complete their high school diploma successfully and to have spares, particularly in their Grade 12 year, but planning for a full schedule is suggested.

Question: *How do students know which courses to take to prepare for post-secondary education?*
Answer: Students who have identified their post-secondary plans should consult their school counsellors and a calendar from the post-secondary institution of their choice to make sure they have the necessary prerequisite senior high school courses. Students should check each year for current information. Students are also encouraged to visit the Alberta Learning Information Service (ALIS) site at <http://www.alberta-learning.ab.ca>.

Question: *Are tutors available?*
Answer: The best source of help for students is their classroom teacher. If extra tutoring is required, this is usually arranged privately at parental expense. Schools may be able to help by providing information about tutors.

Question: *Do students need to take all courses in the same sequence; e.g., Drama 10–20–30?*
Answer: No. Students are welcome to take a variety of courses. They are restricted only by the prerequisites required for each course.

Question: *Is a second language a requirement for university entrance?*
Answer: This is not a general requirement for Alberta universities. However, a second language can be used as an academic subject for entrance to several programs and in calculations for scholarships. It may also be used to calculate the academic average. Certain post-secondary faculties may require a second language. Students should consult the post-secondary institution of their choice regarding entrance requirements.

Question: *What happens if a Grade 12 student is short of credits after the first semester?*
Answer: It may be possible for such a student to complete the diploma requirements by taking extra courses, an extra semester, summer school, night schoôl or distance learning. Please consult the student's school for assistance.

Question: *Can a student return to senior high school to complete a high school diploma or upgrade courses following Grade 12?*
Answer: All students who are 19 or under as of September 1 of a school year have the right to attend school. School boards can designate specific schools for returning students.

Question: *Can parents request that their children have a particular teacher for a course?*
Answer: Most schools attempt to accommodate individual requests but are sometimes restricted because of enrollment and scheduling concerns.

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Question: *How can I best assure that my child will have a positive experience in senior high school?*
Answer: Parents and teachers share a commitment to lifelong learning. Ongoing communication among parents, teachers and students is one way of ensuring success.

Question: *What does it mean to challenge a course?*
Answer: Students who believe that they have already achieved the outcomes for a senior high school course and can demonstrate their achievement may ask the school about how they can receive credits for the course without actually taking it. Usually, a course challenge will apply only to a course that is at a higher level in a course sequence, or is at a similar level in an alternative course sequence. This does not apply to diploma examination courses.

Question: *Are there provisions for special needs students writing a diploma examination?*
Answer: Yes. Contact the local school.

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